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THE INFLUENCE OF HEAT TREATMENT ON THE COMPOSITION OF AMINO ACIDS AND FATTY ACIDS IN THE MEAT OF THE INVASIVE CRAYFISH *FAXONIUS LIMOSUS*

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The spiny-cheek crayfish (*Faxonius limosus*, *Rafinesque, 1817*) is one of the most important aquatic invaders in European inland waters and has been recorded in more than 20 European countries. From the end of the 19th century until now, it has become the most widespread non-indigenous crayfish species in Europe and has been included in the list of Invasive Alien Species (IAS) of universal concern within EU regulations. The aim of the present study was to analyze the effect of heat treatment on chemical composition, profile of amino acids and fatty acids of the meat of the invasive crayfish *Faxonius limosus*. The content of protein, moisture and crude fat in the fresh and thermally treated meat was ranged from 17.92% to 17.39%, 79.92% to 80.81%, and 0.23% to 0.25%, respectively. Fresh crayfish meat was of high nutritional quality with an amount of essential amino acids of 7.18 g/100g in sample. A slight decrease in the content of amino acids threonine, phenylalanine and histidine was observed in thermally treated meat. On the other hand, the crayfish meat was characterized by high levels of essential polyunsaturated fatty acids (PUFA), particularly n-3 PUFA, at an optimal ratio of n-3/n-6 and with low values of atherogenic and thrombogenic indices. The results clearly demonstrate that the meat from crayfish has a high nutritional value and has a good potential to serve as a new food source.

Keywords: spiny-cheek invasive crayfish *Faxonius limosus*, nutritional quality, amino acids, fatty acids

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